APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/596,195	06/17/2000	JASON R. WILCOX	1018.084US1	1771

27792   7590   08/04/2003

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EXAMINER
DURAN, ARTHUR D

ART UNIT	PAPER NUMBER
3622	

DATE MAILED: 08/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/596,195	WILCOX ET AL.
	Examiner	Art Unit
	Arthur Duran	3622

-- The MAILING DATE of this communication appears on the cover sh et with the correspondence address--

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>01 July 2003</u> .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-21</u> is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-21</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

     If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All b)☐ Some * c)☐ None of:

         1.☐ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____ .

         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

     a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)	4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) ☐ Notice of Informal Patent Application (PTO-152)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .	6) ☐ Other: .

DETAILED ACTION

1.   Claims 1-21 have been examined.

Continued Examination Under 37 CFR 1.114

2.   A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR

1.17(e), was filed in this application after final rejection. Since this application is eligible for continued

examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the

finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's

submission filed on 7/1/03 has been entered.

Response to Amendment

3.   The Amendment filed on 7/1/03 is sufficient to overcome the Brown and Hoyle

reference.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4.   Claims 18-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed

to non-statutory subject matter. These claims are rejected under 35 U.S.C. 101 because these

claims have no connection to the technological arts. The method claims do not specify how the

claims utilize any technological arts. For example, no network or server is specified. To

overcome this rejection, the Examiner recommends that the Applicant amend the claim to

specify or to better clarify that the method is utilizing a medium or apparatus, etc within the technological arts. Appropriate correction is required.

As an initial matter, the United States Constitution under Art. I, §8, cl. 8 gave Congress the power to "[p]romote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries". In carrying out this power, Congress authorized under 35 U.S.C. §101 a grant of a patent to "[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition or matter, or any new and useful improvement thereof." Therefore, a fundamental premise is that a patent is a statutorily created vehicle for Congress to confer an exclusive right to the inventors for "inventions" that promote the progress of "science and the useful arts". The phrase "technological arts" has been created and used by the courts to offer another view of the term "useful arts". See *In re Musgrave*, 167 USPQ (BNA) 280 (CCPA 1970). Hence, the first test of whether an invention is eligible for a patent is to determine if the invention is within the "technological arts".

Further, despite the express language of §101, several judicially created exceptions have been established to exclude certain subject matter as being patentable subject matter covered by §101. These exceptions include "laws of nature", "natural phenomena", and "abstract ideas". See *Diamond v. Diehr*, 450, U.S. 175, 185, 209 USPQ (BNA) 1, 7 (1981). However, courts have found that even if an invention incorporates abstract ideas, such as mathematical algorithms, the invention may nevertheless be statutory subject matter if the invention as a whole produces a "useful, concrete and tangible result." See *State Street Bank & Trust Co. v. Signature Financial Group, Inc.* 149 F.3d 1368, 1973, 47 USPQ2d (BNA) 1596 (Fed. Cir. 1998).

This "two prong" test was evident when the Court of Customs and Patent Appeals

(CCPA) decided an appeal from the Board of Patent Appeals and Interferences (BPAI). See *In*

re Toma, 197 USPQ (BNA) 852 (CCPA 1978). In *Toma*, the court held that the recited

mathematical algorithm did not render the claim as a whole non-statutory using the Freeman-

Walter-Abele test as applied to *Gottschalk v. Benson,* 409 U.S. 63, 175 USPQ (BNA) 673

(1972). Additionally, the court decided separately on the issue of the "technological arts". The

court developed a "technological arts" analysis:

> The "technological" or "useful" arts inquiry must
> focus on whether the claimed subject matter...is
> statutory, not on whether the product of the claimed
> subject matter...is statutory, not on whether the
> prior art which the claimed subject matter purports to
> replace...is statutory, and not on whether the claimed
> subject matter is presently perceived to be an
> improvement over the prior art, e.g., whether it
> "enhances" the operation of a machine. *In re Toma* at
> 857.

In *Toma*, the claimed invention was a computer program for translating a source human language

(e.g., Russian) into a target human language (e.g., English). The court found that the claimed

computer implemented process was within the "technological art" because the claimed invention

was an operation being performed by a computer within a computer.

The decision in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.* never

addressed this prong of the test. In *State Street Bank & Trust Co.,* the court found that the

"mathematical exception" using the Freeman-Walter-Abele test has little, if any, application to

determining the presence of statutory subject matter but rather, statutory subject matter should be

based on whether the operation produces a "useful, concrete and tangible result". See *State Street*

Bank & Trust Co. at 1374. Furthermore, the court found that there was no "business method exception" since the court decisions that purported to create such exceptions were based on novelty or lack of enablement issues and not on statutory grounds. Therefore, the court held that "[w]hether the patent's claims are too broad to be patentable is not to be judged under §101, but rather under §§102, 103 and 112." See *State Street Bank & Trust Co.* at 1377. Both of these analysis goes towards whether the claimed invention is non-statutory because of the presence of an abstract idea. Indeed, *State Street* abolished the Freeman-Walter-Abele test used in *Toma*. However, State Street never addressed the second part of the analysis, i.e., the "technological arts" test established in *Toma* because the invention in *State Street* (i.e., a computerized system for determining the year-end income, expense, and capital gain or loss for the portfolio) was already determined to be within the technological arts under the *Toma* test. This dichotomy has been recently acknowledged by the Board of Patent Appeals and Interferences (BPAI) in affirming a §101 rejection finding the claimed invention to be non-statutory. See *Ex parte Bowman*, 61 USPQ2d (BNA) 1669 (BdPatApp&Int 2001).

In the present application, no technological art (i.e., computer, network, server) is being utilized in claims 18-20. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 8, 13, and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Brown (6,026,368) in view of Herz (6,029,195).

Claims 8, 13, and 18-21: Brown discloses a method for providing content and advertising

information to a targeted set of viewers. Brown further discloses that content locations

(websites) and site hosts can be targeted for the content (col 3, lines 45-62 and col 23, lines 18-

26). Brown further discloses constructing sub item slot groups, each sub group having item

slots, each item slot initially unfilled and able to be filled by an item (col 9, lines 15-52),

constructing item slot groups, each group having at least one sub item slot group and having item

slots equal to a total number of item slots of the at least one sub item slot group the group

encompasses, each item slot initially unfilled and able to be filled by an item (col 9, lines 15-52),

constructing meta item slot groups, each meta group having at least one item slot group and

having item slots equal to a total number of item slots of the at least one item slot group the meta

group encompasses, each item slot initially unfilled and able to be filled by an item (col 9, lines

15-52), allocating items of a first type over the item slots of the meta item slot groups that are

unfilled by matching characteristics of the item to characteristics of the meta item slot group,

such that allocating an item to an item slot fills the item slot with the item (col 10, lines 24-40),

allocating items of a second type over the item slots of the meta item slot groups that are

unfilled, the item slots of the item slot groups that are unfilled, and the item slots of the sub item

slot groups that are unfilled, by matching characteristics of the items to characteristics of the sub

item slot groups, such that allocating an item to an item slot fills the item slot with the item (col

10, lines 24-40), and allocating items of the first type over the item slots of the item slot groups

that are unfilled and the item slots of the sub item slot groups that are unfilled, such that allocating an item to an item slot fills the item slot with the item (col 10, lines 24-40).

Brown further discloses that different and simultaneous queues are created for different types or categories, that these queues are formed based on rules and priorities, and also that these queues can be combined to form one main queue (col 17, lines 30-55; col 5, lines 40-49; col 3, line 62-col 4, line 15). Brown discloses that play lists can be constructed according to predetermined rules and definitions (col 2, lines 1-5; col 2, lines 15-28). Brown further discloses that sets of priority queues are generated (col 5, lines 56-60). The Merriam-Webster Online Dictionary (www.m-w.com) states that a set is, " 2 : a number of things of the same kind that belong or are used together." Hence, it is inherent to a set that a set has a limited number of items.

Brown further discloses that a specific number of segments is predetermined and then returned in response to the reception of a playlist (col 17, lines 24-29).

Brown further discloses that the analyst creates and controls all aspects of what and how target objects will be targeted (col 13, lines 19-26) and that a variety of content segments are available to select to fill these target objects (col 13, lines 19-26).

Brown further discloses that there are folders for the different types of target entities and also folders of the available items to fill those target entities (col 13, line 65-col 14, line 12). Brown further discloses that content items can be selected to fill empty content slots (col 14, lines 9-12).

Brown further discloses that target object slots are filled and that content segment fields are filled, and that target object slots are matched with content segments (col 14, lines 13-15).

Brown further states, 'When the target object and content segment fields are filled,'(col 14, lines

13-15, therefore, it is inherent to Brown's disclosure that there is a limit on the target object slots

and content segment fields that need to be filled. It is, therefore, inherent to Brown's disclosure

that items are added to unfilled slots, that there are a predetermined number of slots, that these

slots are originally empty, and that these slots need to be filled.

Brown further discloses that available records can be added to folders based on the type

of information that that folder holds (col 9, lines 34-46; col 10, lines 31-40).

Brown further discloses that different content segments can be targeted with different

priorities (col 13, lines 28-36; col 3, lines 55-62).

Brown does not explicitly disclose that the folders, priority queues, and records are

placed in hierarchical or ranked order where a higher folder or queue is more encompassing,

broader or more general in scope than a lower folder or queue.

However, Herz discloses created ranked ordered lists of items of interest to a users (col 1,

lines 25-25); creating collections, subcollections, clusters, and categories of items of gradually

more focused content (col 3, lines 30-54); of targeting and matching content to the slots and

hierarchical categories (col 5, lines 20-52); that groups are organized into general to gradually

more specific groups, where each group has several categories within it (col 8, lines 5-21; Fig.

7); that different attributes can be determined and given different priorities for different

categories (col 16, line 60-col 17, line 57); hierarchical clusters whereby an item is a member of

all the clusters above it and each cluster beneath an item becomes more and more specific in

scope (col 25, lines 10-67); routing information to particular categories in a prioritized way (col

35, lines 55-65); that content can be prioritized and matched (col 36, line 60-col 37, line 20);

grouping targeted content into hierarchical clusters (col 16, lines 15-31); filling empty item slots

for advertising (col 73, lines 28-34); that empty sets can be created and then filled (col 26, lines

21-24; col 50, lines 38-43); that the matching can be performed for advertising purposes (col 7,

lines 29-51).

Therefore, it would have been obvious to one having ordinary skill in the art at the time

the invention was made to add Herz's hierarchical clustering to Brown's advertisement and

advertisement slot matching. One would have been motivated to do this because Herz's

hierarchicial clustering allows Brown to organize his folders, sub-folders, categories, and priority

queues in a manner that can better match items of different priorities.

6.   Claims 1-7, 9-12, and 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Brown (6,026,368) in view of Herz (6,029,195) in further view of Conley (6,434,745).

Claim 1: Brown discloses a method for providing content and advertising information to

a targeted set of viewers. Brown further discloses that content locations (websites) and site hosts

can be targeted for the content (col 3, lines 45-62 and col 23, lines 18-26). Brown further

discloses constructing item slot groups, each group having item slots, each item slot initially

unfilled and able to be filled by an item (col 9, lines 15-52), allocating items of a first type to the

item slots of the item slot groups that are unfilled by matching characteristics of the first type of

items to characteristics of the item slot group, such that allocating an item to an item slot fills the

item slot with the item (col 10, lines 24-40), allocating items of a second type over the item slots

of the item slot groups that are unfilled, by matching characteristics of the second type of items

to characteristics of the item slot groups, such that allocating an item to an item slot fills the item

slot with the item (col 10, lines 24-40). Brown further discloses displaying the items that are available for a group (col 10, lines 35-40).

Brown further discloses that different and simultaneous queues are created for different types or categories, that these queues are formed based on rules and priorities, and also that these queues can be combined to form one main queue (col 17, lines 30-55; col 5, lines 40-49; col 3, line 62-col 4, line 15). Brown discloses that play lists can be constructed according to predetermined rules and definitions (col 2, lines 1-5; col 2, lines 15-28). Brown further discloses that sets of priority queues are generated (col 5, lines 56-60). The Merriam-Webster Online Dictionary (www.m-w.com) states that a set is, " 2 : a number of things of the same kind that belong or are used together." Hence, it is inherent to a set that a set has a limited number of items.

Brown further discloses that a specific number of segments is predetermined and then returned in response to the reception of a playlist (col 17, lines 24-29).

Brown further discloses that the analyst creates and controls all aspects of what and how target objects will be targeted (col 13, lines 19-26) and that a variety of content segments are available to select to fill these target objects (col 13, lines 19-26).

Brown further discloses that there are folders for the different types of target entities and also folders of the available items to fill those target entities (col 13, line 65-col 14, line 12). Brown further discloses that content items can be selected to fill empty content slots (col 14, lines 9-12).

Brown further discloses that target object slots are filled and that content segment fields are filled, and that target object slots are matched with content segments (col 14, lines 13-15).

Brown further states, 'When the target object and content segment fields are filled,'(col 14, lines

13-15, therefore, it is inherent to Brown's disclosure that there is a limit on the target object slots

and content segment fields that need to be filled. It is, therefore, inherent to Brown's disclosure

that items are added to unfilled slots, that there are a predetermined number of slots, that these

slots are originally empty, and that these slots need to be filled.

Brown further discloses that available records can be added to folders based on the type

of information that that folder holds (col 9, lines 34-46; col 10, lines 31-40).

Brown further discloses a predefined number of item slots (col 17, lines 24-29; col 14,

lines 13-15).

Brown further discloses that different content segments can be targeted with different

priorities (col 13, lines 28-36; col 3, lines 55-62).

Brown does not explicitly disclose that the folders, priority queues, and records are

placed in hierarchical or ranked order where a higher folder or queue is more encompassing,

broader or more general in scope than a lower folder or queue.

However, Herz discloses created ranked ordered lists of items of interest to a users (col 1,

lines 25-25); creating collections, subcollections, clusters, and categories of items of gradually

more focused content (col 3, lines 30-54); of targeting and matching content to the slots and

hierarchical categories (col 5, lines 20-52); that groups are organized into general to gradually

more specific groups, where each group has several categories within it (col 8, lines 5-21; Fig.

7); that different attributes can be determined and given different priorities for different

categories (col 16, line 60-col 17, line 57); hierarchical clusters whereby an item is a member of

all the clusters above it and each cluster beneath an item becomes more and more specific in

scope (col 25, lines 10-67); routing information to particular categories in a prioritized way (col 35, lines 55-65); that content can be prioritized and matched (col 36, line 60-col 37, line 20); grouping targeted content into hierarchical clusters (col 16, lines 15-31); filling empty item slots for advertising (col 73, lines 28-34); that empty sets can be created and then filled (col 26, lines 21-24; col 50, lines 38-43); that the matching can be performed for advertising purposes (col 7, lines 29-51).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add Herz's hierarchical clustering to Brown's advertisement and advertisement slot matching. One would have been motivated to do this because Herz's hierarchicial clustering allows Brown to organize his folders, sub-folders, categories, and priority queues in a manner that can better match items of different priorities.

Brown does not explicitly state that the information is displayed in bar graph format.

However, Conley discloses advertising over the Internet, utilizing advertising categories and sub-categories, and reporting on advertising information (col 1, lines 30-57). Conley further discloses utilizing graphs, charts, and histograms for data reporting (col 9, lines 32-36).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add Conley's complex graphical displays and histograms of data information to Brown's advertisement management method. One would have been motivated to do this because Brown discloses displaying the items available and Conley's complex graphical displays and histograms of data information is an obvious way of doing this that lends itself to easy interpretation of whether folders or queues are filled or not.

Claims 2, 10, and 15: Brown, Herz, and Conley disclose a method as in claims 1, 8, and 13. Brown further discloses that each item comprises an ad and each item slot group comprises a web site, such that each item slot corresponds to an advertising space (col 4, lines 7-10; col 23, lines 18-24; col 17, lines 21-24).

Claims 3, 11, and 16: Brown, Herz, and Conley disclose a method as in claims 2, 10, and 15. Brown further discloses that the first type of items comprises member ads, and the second type comprises sponsor ads (col 5, lines 63-67).

Claims 4, 12, and 17: Brown, Herz, and Conley disclose a method as in claims 1, 8, and 13. Brown further discloses a fill quota and filling the slots with a number of items equal to the quota (col 25, line 63-col 26, line 19 and col 9, lines 15-52).

Claim 5: Brown, Herz, and Conley disclose a method as in claim 4. Brown further discloses filling the items of the first type with the number of item slots of the item slot groups that are unfilled with the item equal to the quota proportionally as to the item slots unfilled of the item slot groups having characteristics matching the characteristics of the item (col 25, line 63-col 26, line 19; col 9, lines 15-52; and col 10, lines 24-40).

Claim 6: Brown, Herz, and Conley disclose a method as in claim 1. Brown further discloses that the second type has a quota, wherein allocating each of the items of the second type comprises filling the items of the slot groups that are unfilled with the items equal to the quota (col 25, line 63-col 26, line 19; col 9, lines 15-52; and col 10, lines 24-40).

Claim 7: Brown, Herz, and Conley disclose a method as in claim 6. Brown further discloses filling the items of the second type with the number of item slots of the item slot groups that are unfilled with the item equal to the quota proportionally as to the item slots unfilled of the

item slot groups having characteristics matching the characteristics of the item (col 25, line 63-col 26, line 19; col 9, lines 15-52; and col 10, lines 24-40).

Claims 9 and 14: Brown and Herz disclose a method as in claims 8 and 13.

Brown further discloses displaying the items that are available for a group (col 10, lines 35-40).

Brown does not explicitly state that the information is displayed in bar graph format.

However, Conley discloses advertising over the Internet, utilizing advertising categories and sub-categories, and reporting on advertising information (col 1, lines 30-57). Conley further discloses utilizing graphs, charts, and histograms for data reporting (col 9, lines 32-36).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add Conley's complex graphical displays and histograms of data information to Brown's advertisement management method. One would have been motivated to do this because Brown discloses displaying the items available and Conley's complex graphical displays and histograms of data information is an obvious way of doing this that lends itself to easy interpretation of whether folders or queues are filled or not.

Response to Arguments

7.   Applicant's arguments with respect to claim 1-21 have been considered but are moot in view of the new ground(s) of rejection.

Examiner notes that while specific references were made to the prior art, it is actually also the prior art in its entirety that is being referred to.
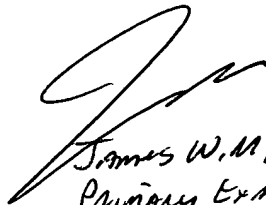
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arthur Duran whose telephone number is (703)305-4687. The examiner can normally be reached on Mon- Fri, 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Stamber can be reached on (703)305-8469. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9326 for regular communications and (703)872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-1113.

July 28, 2003

James W. Myhre
Primary Examiner
Art Unit 3622